

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-5. (Cancelled without prejudice).

6. (Currently amended) The method for deodorization ~~nano-carbon ball~~ according to claim 21 ~~claim 5~~, wherein the transition metal is selected from the group consisting of copper, iron, manganese, nickel, cobalt, silver, gold, vanadium, ruthenium, titanium, chromium, zinc and palladium.

7. (Currently amended) The method for deodorization ~~nano-carbon ball~~ according to claim 21 ~~claim 5~~, wherein the transition metal oxide is selected from the group consisting of the oxides of copper, iron, manganese, nickel, cobalt, silver, gold, vanadium, ruthenium, titanium, chromium, zinc and palladium.

8. (Currently amended) The method for deodorization ~~nano-carbon ball~~ according to claim 21 ~~claim 5~~, wherein the alkali metal salt is selected from the group consisting of sodium bromide, sodium iodide, potassium bromide, potassium iodide and potassium iodate.

9. (Currently amended) The method for deodorization ~~nano-carbon ball~~ according to claim 6, wherein the transition metal is copper and manganese.

10. (Currently amended) The method for deodorization ~~nano-carbon ball~~ according to claim 6, wherein the transition metal is copper, iron and zinc.

11. (Currently amended) The method for deodorization ~~nano-carbon ball~~ according to claim 6, wherein the transition metal is vanadium, ruthenium and titanium.

12. (Currently amended) The method for deodorization ~~nano-carbon ball~~ according to claim 8, wherein the alkali metal salt is potassium iodide.

13. (Currently amended) The nano method for deodorization ~~nano-carbon ball~~ according to claim 21 ~~claim 5~~, wherein the nano carbon ball is impregnated with an amount of the metal composition of from about 0.01 wt. % to about 30 wt. % on the basis of a total weight of the nano carbon ball.

14. (Currently amended) The method for deodorization ~~nano-carbon ball~~ according to claim 13, wherein the amount of the metal composition is from about 0.01 wt. % to 10 wt. % on the basis of the total weight of the nano carbon ball.

Claims 15-20. (Cancelled without prejudice.)

21. (New) A method for deodorization using one or more nano carbon balls comprising:

contacting one or more nano carbon balls with a malodorous substance, said nano carbon ball comprising a mesoporous shell and having a hollow core, wherein said mesoporous shell has a thickness of 50 nm to 500 nm and said hollow core has a diameter of 10 nm to 1,000 nm, wherein said mesoporous shell comprises carbon, wherein said nano carbon ball is impregnated with at least one metal composition selected from the group consisting of a transition metal, a transition metal oxide, an alkali metal salt, and mixtures thereof;

wherein said malodorous substance is absorbed in said mesoporous shell or said hollow core of one or more of said nano carbon balls, and wherein said contacting deodorizes said malodorous substance.

22. (New) The method for deodorization according to claim 21, wherein said malodorous substance is methanthiol, methyl sulfide, dimethyl disulfide, hydrogen sulfide, ammonia, trimethyl amine, styrene, acetaldehyde, nitric oxide, nitrous oxide, or an odor of tobacco.

23. (New) The method for deodorization according to claim 21, further comprising contacting said one or more nano carbon balls with a human, and wherein said malodorous substance is an odor from said human.

24. (New) The method for deodorization according to claim 21, further comprising contacting said one or more nano carbon balls with a bathroom, a kitchen or a footwear, and wherein said malodorous substance is an odor from said bathroom, kitchen or footwear.

25. (New) The method for deodorization according to claim 21, wherein said one or more nano carbon balls is dispersed in or on a sheet, a pack or a pad.

26. (New) The method for deodorization according to claim 21, wherein said one or more nano carbon balls is dispersed in or on a diaper or a feminine hygiene product.

27. (New) The method for deodorization according to claim 21, wherein said one or more nano carbon balls is mixed with a binder prior to contacting said one or more nano carbon balls with said malodorous substance.